Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Noserre 1 Ag 85 Eorrespondence Bulletin

> U.S. DEPT. OF ARRIGULTURE NATIONAL ACR CULTURUL LISMARY

> > AUG 12 1935

CURRENT SERIAL RECORDS

SCHEDULE OF COURSES 1965-66

GRADUATE SCHOOL



Correspondence Bulletin

1965-1966

GRADUATE SCHOOL
U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C. 20250



General Information

The Graduate School was established to serve Federal employees and to help Federal agencies meet special training problems. It is a private, non-profit institution administered by a board appointed by the Secretary of the United States Department of Agriculture. It is self-supporting, and receives no appropriated funds.

Admission: Provided he meets course requirements, any high school graduate, or equivalent, may register in the Graduate School Correspondence Program. He need not be a Federal employee. Courses are open to people in Washington, D. C., as well as those in the field.

Registration: An application blank is in this bulletin. Additional blanks will be sent on request. Because courses are taught by the correspondence method, students may register at any time, and may proceed as fast as their time permits. Courses should normally be completed within one year. A six-months' extension is granted if circumstances justify.

Students may not enroll in two courses at the same time without special permission.

Transfers: Students register individually. Courses cannot be transferred from one student to another.

Fees: Because of the special requirements of certain tuition payment plans, fees have been divided to show that part covering instructional services (tuition) and the part for textbooks, postage, lesson materials, and non-instructional services.

Textbooks are handled as a service to students. Students who wish to obtain textbooks elsewhere may specify "No textbooks" or may return books within 30 days for a full refund.

General Information (Continued)

Postage: Fees cover surface postage within the United States. Additional costs of foreign or airmail postage must be paid by the student. Students in the Foreign Service with pouch mailing privileges should use their pouch address.

Withdrawals and Refunds: On withdrawals within 30 days, no lessons graded, and all books and materials returned in new condition—a full refund is given, less a \$6.00 registration fee. There are no refunds after three months of enrollment. A schedule of refunds will be sent on request.

Credits: Credits apply toward U. S. Civil Service Commission eligibility requirements. The Graduate School does not grant degrees. Whenever a student wishes to apply Graduate School correspondence credit toward a degree in a college or university, he should consult in advance with the other institution concerned.

Transcripts: Students may request a record of course completions and marks sent direct to the U. S. Civil Service Commission or to a college or university. The fee is \$1.00 each. For this service, write to: The Registrar, USDA Graduate School, Washington, D. C. 20250.

For further information, write:
HEAD, CORRESPONDENCE PROGRAM
THE GRADUATE SCHOOL

U. S. Department of Agriculture Washington, D. C. 20250

CORRESPONDENCE PROGRAM

The date following each instructor's name shows the year of first association with the Graduate School.

10C. Review of Engineering Fundamentals for P. E. Examination

Non-credit (16 lessons)

RIXSE, JOHN H., JR., (1958). B.S., George Washington. Registered Professional Engineer, Chief, Power System Engineering Branch, Rural Electrification Administration, USDA.

General refresher course in basic sciences and engineering principles. Intended to assist in preparation for basic portions of the Professional Engineer's License Examination (Engineers-in-Training). Not specific branches of engineering, but introductory problems for spe-

cific branches. Elements of strength of materials. Structures. Fluid mechanics. Mechanical engineering. Electrical engineering. Engineering economics. *Prerequisite:* Preferred, those qualified to take the Professional Engineer's Examination. Cost: \$69.00 (Tuition \$42 plus \$27 for texts, supplies, and service). Texts: William Glendinning: Professional Engineering Examinations, Part I, *Structural Planning and Design*, 1962; Part II, *Basic Engineering Sciences*, 1961; Part III (with Max J. Steinberg), *Engineering Economics and Practice*, 1961; Bayside, N. Y.: William Glendinning.

110C. Basic Mathematics

2 credits (16 lessons)

McCurley, J. B., (1960). D.Eng., Johns Hopkins. Director, Electric Distribution Division, Rural Electrification Administration, USDA.

Study of percentage, ratio and proportion, powers and roots, elementary algebra, logarithms, graphs, trigonometry, scientific notations for large and small numbers. Recommended for those students who have not had algebra and trigonometry or as a refresher course where activities in this field have been dormant for a number of years. Helpful for courses such as Basic Electricity 120C and Basic Electronics 240C. Cost: \$43.00 (Tuition \$28 plus \$15 for text, supplies, and service). Text: Department of the Army Technical Manual TM 11-684, Principles and Applications of Mathematics for Communications-Electronics. Washington, D. C.: Government Printing Office, 1961.

120C. Basic Electricity

2 credits (18 lessons)

McCurley, J. B., (1960). D.Eng., Johns Hopkins. Director, Electric Distribution Division, Rural Electrification Administration, USDA.

Course for non-technical and beginning technical personnel. Essentials of basic electrical theory: electrostatics, electromagnetics, resistance, inductance, capacitance, direct and alter-

nating current circuits, transformers, generators, motors, polyphase systems and connections, rectifiers, and essentials of electric wiring. Only elementary mathematics used. No previous knowledge of electricity required. Completion of 110C, Basic Mathematics or equivalent, is desirable as prerequisite, but not essential. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies and service). Text: Rufus P. Turner: Basic Electricity. 2nd Ed. New York: Holt, Rinehart and Winston. 1963.

240C. Basic Electronics

3 credits (16 lessons)

McCurley, J. B., (1960). D.Eng., Johns Hopkins. Director, Electric Distribution Division, Rural Electrification Administration, USDA.

Course in the fundamentals of electronics. It is concerned with devices involving the emission, behavior, and effect of electrons in vacuums, gases, and semiconductors. Basic theory of: electron tubes, transistors, tuned circuits, power supplies, amplifiers, oscillators, modulation, demodulation, transmitters, transmission lines, receivers, antennas, propagation, and introduction to computers. Completion of 120C, Basic Electricity or equivalent is highly desirable as prerequisite, but not essential. Cost: \$62.00 (Tuition \$42 plus \$20 for text, supplies and service). Text: Basic Electronics, 1962 edition, NAVPERS 10087-A. Washington, D. C.: Government Printing Office.

130C. Better Letters

Non-credit (6 lessons)

Secrest, Elizabeth D., (1962). B.A., Colorado College, Management Analyst, Internal Revenue Service, Department of the Treasury.

Better letters mean savings of money and improved public relations. Through guided practice, students learn seventeen proven rules for writing better letters. The course is meant especially for people who handle government correspondence, but is also useful for business

or personal letter writing. The 4-S Formula for Shortness, Simplicity, Strength, and Sincerity. Adapted from "Plain Letters Workshop." Emphasis on skills of communication rather than on grammar. Cost: \$25.00 (Tuition \$14 plus \$11 for supplies and service).

114C. Federal Personnel Procedures

2 credits (16 lessons)

STARNS, HENRY C., (1957). B.A., George Washington. Director, Personnel Management Division, Rural Electrification Administration, USDA.

Legal, regulatory, and procedural aspects of Federal personnel administration. Designed to broaden technical knowledge of those engaged in personnel work and to inform those in other administrative activities about personnel requirements and activities. Also to acquaint the Federal employee in general concerning laws and regulations governing his status and rights. Study of purpose and place of personnel activities in the Government. Review of basic laws and authorities for personnel action, position classification activities, recruiting, and administrative activities preceding appointment process. Requirements and procedures involved in personnel actions such as appointments, promotions, removals, retirements, reductions in force, and disciplinary actions. Personnel activities involving minimum of standard regulation, procedure and practice, such as training, incentive awards, employee relations, and employee performance. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies and service). Text: Henry C. Starns: Excerpts from Laws, Rules, and Regulations Affecting Federal Personnel Procedures. Washington, D. C.: USDA Graduate School.

205C. Modern Supervisory Practice

2 credits (16 lessons)

VanDersal, William R., (1957). Ph.D., Pittsburgh. Deputy Administrator for Management, Soil Conservation Service, USDA.

Berg, Norman A., (1962). M.P.A., Harvard. Assistant to the Administrator, Soil Conservation Service, USDA.

APPLICATION BLANK

(Please type or use block letters. Fill in completely.)

GRADUATE SCHOOL CORRESPONDENCE DEPT. U. S. DEPARTMENT OF AGRICULTURE WASHINGTON, D. C. 20250

Please enroll me in

Course NumberTit	le	
Name and address to which cour	se should be sent:	
Mr.		
Miss		
1415.		
Date of Birth	Age	Male []
EDUCATION: Highest year co	ompleted as full-	time student:
High School 1 2 3 4 Busines	ss or Technical S	chool 1 2 3 4
College 1 2 3 4 Gradua	te School 1 2 3 4	ł .
College or University	Dates attended	Degree Year
Previous correspondence courses	completed:	
-	_	
Prerequisites or special qualificat	ions for this cours	e:
WORK EXPERIENCE: Present p	osition and grade:	
Salary level: Under \$6,000 pe	er year Above	\$10,000
(Circle one) \$6,000 to \$10,00	0 Unemp	ployed
Immediate Supervisor:		
P1		
Employer:		
Employer's Address:		
For what purpose are you taking	the course?	
Remittance enclosed(Make checks payable to Gradu	sate School, USD	A.)
DateSignature		
1		
Check received: Date		\$
chool From: Student		\$
Employer	S/P	\$
Other (whom?)_	Books	\$

Submit Application in duplicate
(One copy for file, one copy for instructor)

Please type or use block letters

APPLICATION BLANK

(Please type or use block letters. Fill in completely.)

GRADUATE SCHOOL CORRESPONDENCE DEPT. U. S. DEPARTMENT OF AGRICULTURE WASHINGTON, D. C. 20250

Please enroll me in

Course NumberTitle	2	
Name and address to which cours	e should be sent:	
Mr.		
Miss		
Date of Birth	Age	Male ☐ Female ☐
EDUCATION: Highest year con	mpleted as full-	time student:
High School 1 2 3 4 Business	or Technical S	chool 1 2 3 4
College 1 2 3 4 Graduate	e School 1 2 3 4	1
College or University	Dates attended	Degree Year
Previous correspondence courses c	ompleted:	
Prerequisites or special qualification	ons for this cours	e:
WORK EXPERIENCE: Present po	sition and grade:	:
C-111		£10,000
Salary level: Under \$6,000 per (Circle one) \$6,000 to \$10,000		\$10,000
Immediate Supervisor:	Unemp	pioyed
Employer:		
Employer's Address:		
E		
For what purpose are you taking the	ne course?	
Remittance enclosed (Make checks payable to Gradua		A.)
DateSignature		
Check received: Date	Amount	\$
From: Student	Tuition	\$
Employer	S/P	\$
Other (whom?)	Books	\$

Submit Application in duplicate
(One copy for file, one copy for instructor)
Please type or use block letters

ROGERS, JOSEPH B., (1960). M.S., Washington State. Personnel Management Specialist, Personnel Division, Soil Conservation Service, USDA.

GOFF, NANCY, (1965). B.S., George Washington. Assistant Chief, Budget Branch, Office of Management Services, USDA.

KOENIG, EDWARD H., (1963). M.A., Columbia and Cornell. Information Specialist, Special Reports Division, Office of Information, USDA.

Designed for supervisors or those desiring to become supervisors. Involves study and application of principles of supervision, supervisory techniques, participation, motivation, communications, organization principles, workload analysis, planning, scheduling, work improvement studies, and solving problem cases. Cost: \$58.00 (Tuition \$28 plus \$30 for texts, supplies, and service). Texts: William R. VanDersal: The Successful Supervisor, New York: Harper & Row. 1962: Douglas McGregor: Human Side of Enterprise, New York: McGraw-Hill. 1960; Stuart Chase: The Proper Study of Mankind, New York: Harper & Row, Rev.; Richard Beckhard: How to Plan and Conduct Workshops and Conferences, New York: Association Press. 1956; Warner W. Stockberger: As I See It, Washington, D. C.: USDA Graduate School; Harold P. Zelko: Guide to Successful Speaking. Philadelphia: Farm Technology, Publishers.

236C. Report Writing

2 credits (15 lessons)

REED, ROBERT C., (1960). M.A., Bowling Green. Assistant, University of Maryland.

SCHAAL, WILBERT, (1956). B.S., Ohio State. Agricultural Trade Promotion Specialist, Foreign Agricultural Service, USDA.

Designed to assist field employees of the Federal Government in preparing memoranda and reports. Simple and brief treatment of English composition. Special attention to clear, concise, orderly and informative presentation. Avoidance of more common faults of expression. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies, and service). Text: Woolley, Scott, and Bracher: College Handbook of Composition. 6th Ed. Boston: D. C. Heath, 1958.

500C. Technical Writing

2 credits (16 lessons)

KONKLE, WARD W., (1960). B.A., Pittsburgh. Editor, Agricultural Science Review, Cooperative State Research Service, USDA.

Designed to help scientists, engineers, and economists improve their research reports and journal articles for professional publication. Step-by-step procedure in planning, outlining, and writing first draft. Revising for clarity. Adding professional touch. Presenting data in tabular form. Writing summaries and abstracts. Reviewing and evaluating technical papers. *Prerequisite:* Undergraduate degree in one of sciences, engineering, economics, or other technical field. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies, and service). Text: Daniel Marder: *The Craft of Technical Writing*. New York: Macmillan, 1960.

325C. Legal Aspects of Investigations — Criminal Evidence and Procedure

2 credits (16 lessons)

CUMMINGS, JOSEPH D., (1963). LL.B., Catholic University. Attorney Adviser, Office of General Counsel, USDA.

Designed to provide background and insight into legal aspects of crime investigations. Procedures concerning admission of evidence. Circumstances and conditions under which evidence is of probative value. Crimes and their elements. Court procedures. Because all investigations are potential sources of prosecution, the requirements of criminal evidence and procedure often reach into the early stages of investigation. Designed to provide understandable information without over-emphasis on technical aspects. Cost: \$48.00 (Tuition \$28 plus 20 for supplies and service).

362C. Federal Meat Inspection and Animal Quarantine Laws

2 credits (16 lessons)

Kahn, Dona S., (1960). LL.B., Rutgers. Attorney, General Regulatory Division, Office of the General Counsel, USDA.

History, constitutionality, and provisions of the Federal Meat Inspection Act and related legislation, the Animal Quarantine statutes, and the Poultry Products Inspection Act. The course is intended as an aid to administrative officials. No previous legal training is required. Cost: \$48.00 (Tuition \$28 plus \$20 for supplies and service).

513C. Statistical Methods in Biology and Agriculture

2 credits (15 lessons)

Le Clerg, E. L., (1949). Ph.D., Minnesota. Consultant, Statistics and Experimental Design. Formerly Director, Biometrical Services Division, Agricultural Research Service, USDA.

Simple variation. Regression and correlation. Analysis of variance and covariance. Chisquare. Multiple and curvilinear correlation. Application to sampling and experimental design. Practical application of methods. *Prerequisite:* Availability of desk calculator, facility in use of arithmetic and understanding of algebra. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies, and service). Text: George W. Snedecor: *Statistical Methods.* 5th Ed. Ames, Iowa: Iowa Univ. Press, 1956.

515C. Statistics of Biological Assay

1 credit (6 lessons); or 2 credits (16 lessons)

WADLEY, F. C., (1944). Ph.D., Minnesota. Analytical Statistician in Biology, U. S. Army Chemical Corps, Department of the Army.

Introduction to specialized methods that have been developed for both graded and all-or-none responses. Estimates of potency, comparisons of materials, variances, and other phases. The one-credit course explains the methods most frequently used. *Prerequisite:* Facility in regression study and analysis of variance, such as taught in Statistical Methods in Biology and Agriculture. Cost: \$33.00 (Tuition \$14 plus \$19 for text, supplies, and service [1 credit]); or \$48.00 (Tuition \$28 plus \$20 for text, supplies, and service [2 credits]). Text: C. I. Bliss: *The Statistics of Bioassay.* New York: Academic Press, 1962.

521C. Experimental Design

2 credits (16 lessons). Instructor: F. M. Wadley. (See 515C above.)

Basic concepts, practice in applying them, and acquaintance with literature opening the way to further study. Philosophy and fundamentals, with some attention to elementary sampling practices. Simpler practical designs, use and analysis of results. Factorial design, confounding, and more complex experiments including block designs. *Prerequisite:* Genuine practical interest in experimentation and some facility in statistical calculations, including analysis of variance. Cost: \$48.00 (Tuition \$28 plus \$20 for text, supplies, and service). Text: Cochran and Cox: *Experimental Designs.* 2nd Ed. New York: Wiley, 1957.

533C. Hydrology I

3 credits (16 lessons)

Baker, Donald R., (1958). B.S., Kansas. Assistant Chief Hydrologic Investigations Section, U. S. Weather Bureau, Department of Commerce.

Review of elementary hydraulic principles basic to study of flow in natural channels. Phenomena of meteorology that control climate. Methods of collecting data essential to hydrology. Physical characteristics of the land that control the disposition and movement of the earth's water. *Prerequisites:* Physics and algebra. Elementary meteorology, statistics, and

engineering desirable, but not required. Cost: \$69.00 (Tuition \$42 plus \$27 for text, supplies, and service). Text: Linsley, Kohler, and Paulhus: *Applied Hydrology*. New York: McGraw-Hill, 1949.

534C. Hydrology II

3 credits (16 lessons). Instructor: Donald R. Baker. (See 533C above.)

Tools used by the hydrologist and application of these tools to specific problems. Hydrograph analysis, runoff relations, runoff distribution, waves, and streamflow routing. Special techniques required in design of projects. Design and operation of water control works. Small basin problems. River forecasting. *Prerequisite:* Hydrology I, or equivalent. Cost: \$69.00 (Tuition \$42 plus \$27 for text, supplies, and service). The text used in Hydrology I is also used in this course.

580C. History of American Agriculture

3 credits (16 lessons)

RASMUSSEN, WAYNE D., (1950). Ph.D., George Washington. Agricultural Historian, Economic Research Service, USDA.

Development of American agriculture from colonial settlement to the present, treated on a chronological basis. Designed to give an historical background for understanding present-day agricultural problems. Two major technological revolutions in American agriculture. Department of Agriculture. Land Grant Colleges. Application of science and technology to farming. Government policies affecting agriculture. Cost: \$65.00 (Tuition \$42 plus \$23 for supplies and service). Text: Wayne D. Rasmussen: Readings in the History of American Agriculture. Urbana, Ill.: Univ. of Illinois Press, 1960.

Special Program in REA Accounting

Three correspondence courses designed for Borrowers' personnel of the Rural Electrification Administration are available. The basic accounting course is also suitable for students other than REA personnel who want to learn the elementary principles of accounting.

100C. Basic Accounting

Non-credit (13 lessons)

Paine, Howard C., (1957). B.A., Nebraska. Chief, Borrowers' Accounting Branch, Controller's Division, Rural Electrification Administration, USDA.

Scott, John W., (1957). B.S., Texas A. and M. Assistant Administrator—Operations, Rural Electrification Administration, USDA.

Introduction to accounting for those who have need of some knowledge of accounting, as taxpayers, as employees having certain accounting duties, as managers or directors of a busi-

ness, or as students embarking on a program of studies including ultimately more specialized accounting. Basic definitions and principles through journalizing, posting, general and subsidiary records, adjustments and accruals, and depreciation to financial statements and ratios, and closing of the books. Thorough grounding in basic accounting theory and its practical application. Cost: \$48.00 (Tuition \$28 plus \$20 for supplies and service).

200C. REA Borrowing Accounting (Electric)

Non-credit (13 lessons). Instructors: H. C. Paine, J. W. Scott, and Associates. (See 100C above.)

Designed primarily to train those who are now, or intend to be, office managers, accountants, or bookkeepers in offices of electric utility cooperatives financed by the Rural Electrification Administration. Also useful for employees and directors and managers of REA-financed cooperatives and certified public accountants, attorneys, and engineers engaged by them. Discussion of accounts and accounting records used through construction accounting procedure. Methods of opening, maintaining, and closing books. Financial and statistical reports and their analysis. Technical aspects of REA electric-borrower accounting. Continuing property records. Budgeting. Requesting, accounting for, and repaying REA loan funds. Working knowledge of accounting basic to electric utility industry. Unique accounting requirements arising from methods of financing REA borrowers and nonprofit nature of those borrowers organized as cooperatives. Revised to include system of accounts in current use. The Administrator of the Rural Electrification Administration awards a Certificate of Proficiency to the student who satisfactorily completes the course. Prerequisite: Basic Accounting, or equivalent, or one year of experience in an REA borrower's office as bookkeeper or assistant bookkeeper. Cost: \$67.00 (Tuition \$42 plus \$25 for supplies and service).

300C. REA Borrower Accounting (Telephone)

Non-credit (13 lessons). Instructors: H. C. Paine, J. W. Scott, and Associates. (See 100C above.)

Designed to provide training for present or prospective bookkeepers and accountants employed by telephone utilities that are borrowers from the Rural Electrification Administration. Also to provide information on telephone utility accounting to directors, managers, and others concerned with the activities of these borrowers. Recommended books of account and basic accounting systems applicable generally to the telephone industry. Accounting to be performed during the periods of organization, construction and operations. Requesting and accounting for REA loan funds. Computation of interest on and repayment of, REA loan obligations. Recommended plant accounting procedures through construction and retirement work order procedures. Through successful completion of this course, the student should acquire overall understanding of accounting systems applicable to the telephone industry and working knowledge of specific procedures unique to telephone utilities financed by REA. The Administrator of the Rural Electrification Administration awards a Certificate of Proficiency to the student who satisfactorily completes the course. Prerequisite: Basic Accounting, or equivalent, or one year's experience as bookkeeper or assistant bookkeeper in the office of a telephone company or cooperative. Cost: \$67.00 (Tuition \$42 plus \$25 for supplies and service).

GENERAL ADMINISTRATION BOARD

Appointed by Orville L. Freeman, Secretary, United States Department of Agriculture

- Joseph M. Robertson, Administrative Assistant Secretary, Department of Agriculture, Chairman
- CARL B. BARNES, Director of Personnel, Department of Agriculture
- NYLE C. Brady, Director of Science and Education, Department of Agriculture
- EDWARD P. CLIFF, Chief, Forest Service, Department of Agriculture
- ALAN L. DEAN, Associate Administrator for Administration, Federal Aviation Agency
- Francis Keppel, Commissioner of Education, Department of Health, Education, and Welfare John W. Macy, Jr., Chairman, United States Civil Service
- Commission
 RUFUS E. MILES, JR., Administrative Assistant Secretary,
- Department of Health, Education, and Welfare

 John A. Schnittker, Under Secretary, Department of
 Agriculture
- SYLVESTER R. SMITH, Administrator, Consumer and Marketing Service
- ROBERT C. WEAVER, Administrator, Housing and Home Finance Agency

COMMITTEE ON CORRESPONDENCE STUDY AND EXTENSION EDUCATION

- Manlio F. DeAncelis, Acting Director, Regional USAID for Africa, Agency for International Development, Department of State, Chairman
- CHARLES B. RAUSCHER, Chief, Training Branch, Food and Drug Administration, Department of Health, Education, and Welfare, Vice Chairman
- EVERETT ALLDREDGE, Assistant Archivist for Records Management, National Archives and Records Service, GSA
- CARL W. EASTON, Employee Development Officer, Bureau of Naval Weapons, Department of the Navy
- James E. Herby, Employee Development Officer, Training and Development Division, Bureau of Personnel, Post Office Department
- Earl C. Hertenstein, Jr., Assistant Director, Training Branch, Internal Revenue Service
- E. J. Peterson, Chief, Training and Safety Branch, Personnel Management Division, Soil Conservation Service, USDA
- JOHN W. SCOTT, Assistant Administrator, Operations, Rural Electrification Administration, USDA
- ROBERT H. WEST, Director, Office of Personnel, Small Business Administration

GRADUATE SCHOOL OFFICERS

- JOHN B. HOLDEN, Director
- EDMUND N. FULKER, Assistant Director and Head of Special Programs
- CONSTANCE G. COBLENZ, Registrar and Head of Resident Evening Program
- Vera E. Jensen, Manager of Press, Information and Library Services
- HELEN KEMPFER, Head, Correspondence Program
- Delos E. Richard, Business Manager

